

discuss the immersion heater in detail. Details for set up and operation of the immersion heater are in Chapter 12. The Army plans to replace the immersion heater (and mess kit laundry lines) with the deployment of the SC. This conversion will depend on finding and deployment of the SC.

SANITATION CENTERS

Food service sanitation requires that certain standards be maintained during field kitchen

operations. The SC (Figure 9-8), provides a means for effectively maintaining sanitation.

Equipment

The equipment for the SC, which includes the TEMPER tent (LIN S33399; NSN 7360-01-277-2558), is shown in Figure 9-9, page 9-7. Assemble equipment as described in the following paragraphs.

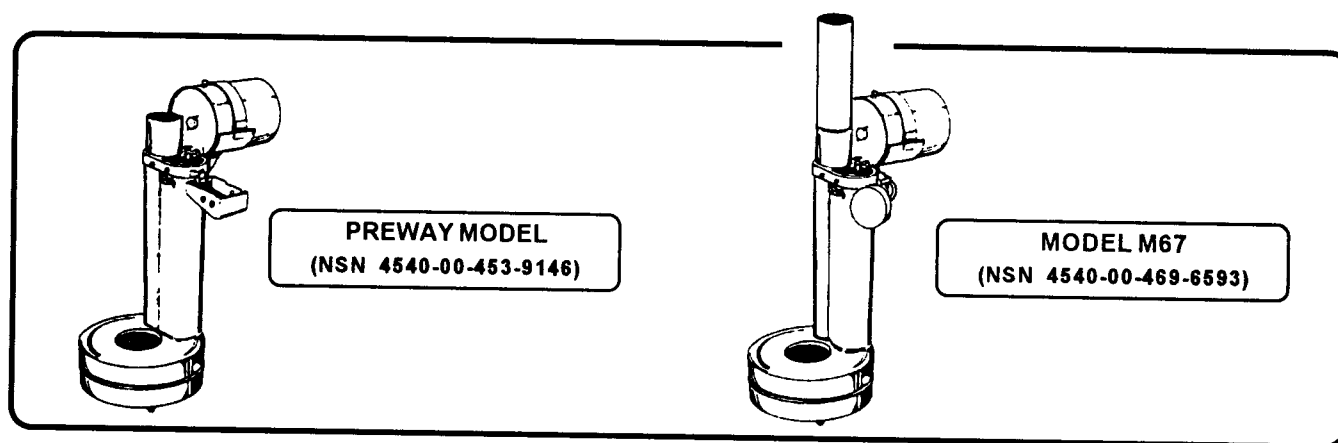


Figure 9-7. Immersion heaters

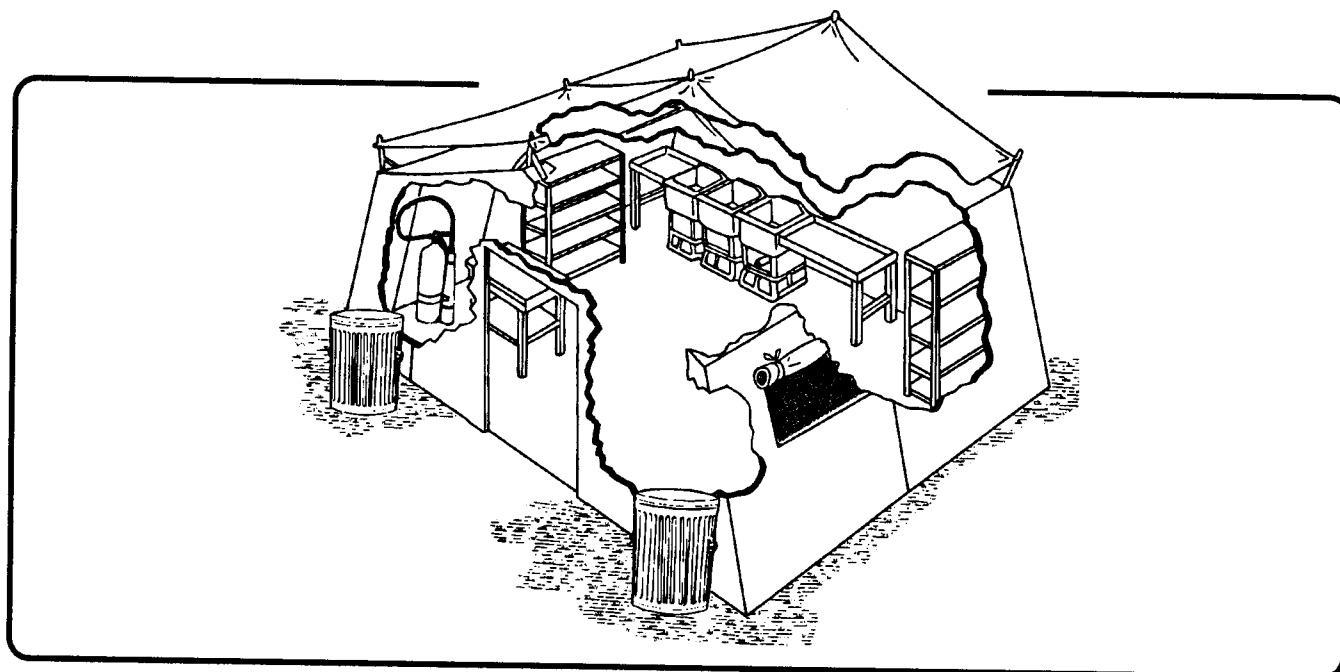


Figure 9-8. Sanitation Center

Sink assembly. The sinks come complete with two racks inside each sink (a burner rack for the M2 burner and a rack base). Assemble the sinks as shown in Figures 9-10 and 9-11, page 9-8.

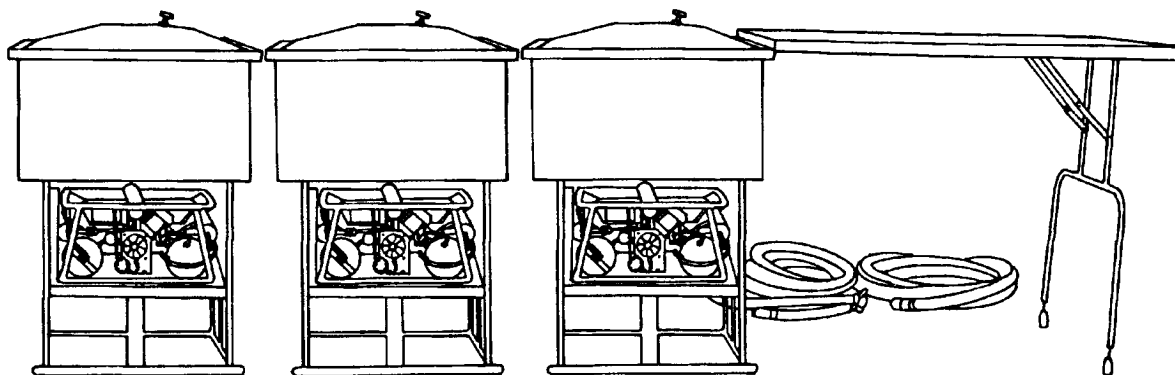
Worktable. Assemble the worktable. Place it in front of the three sinks.

Storage rack assembly. Assemble the storage rack and place it in a convenient area of the tent.

Trash cans. Place the two 32-gallon-capacity plastic trash cans inside the tent entrance. You can also place the trash barrel outside the tent, if that is more convenient. One can is used for food waste (plate scraping, leftovers, and vegetable culling) and the other is for nonfood waste (cans, bottles, boxes, and paperware).

- Three field sinks and three sink covers
- Two drain tables
- One worktable
- Two storage racks
- Three burner units
- One tent, extendable, modular, utility (16 feet by 20 feet)
- One gasoline lantern
- One 50-foot drain hose assembly
- One fire extinguisher
- Three thermometers for the sink and three brackets for the thermometers
- Two plastic trash barrels
- Two sink immersion racks
- Two sink adapters (to connect sinks at the top)

Figure 9-9. Sanitation Center equipment



1. Take out the first rack for the M2 burner.
2. Take out the rack base. Invert it, and use it as a foundation.
3. Set the M2 burner rack on the rack base.
4. Center the sink on top of the M2 burner back with the drain assembly to the rear.
5. Repeat steps 1 through 4 with the remaining two sinks.
6. Place the three sinks next to each other by the window at the rear or left side of the tent. Attach the sinks together with sink adapters. Attach the drain table to the side of the two end sinks. The two drain tables will hook onto the top edge of the sink. Adjust the fold-out legs for balance. Attach thermometers and thermometer brackets to each sink.
7. Attach the drain hose assembly to the rear of each sink; then attach the 50-foot length of drain hose to the drain hose assembly, and extend it to the proper location (Figure 9-11, page 9-8).
8. Close the sink drains.

Figure 9-10. Sink assembly

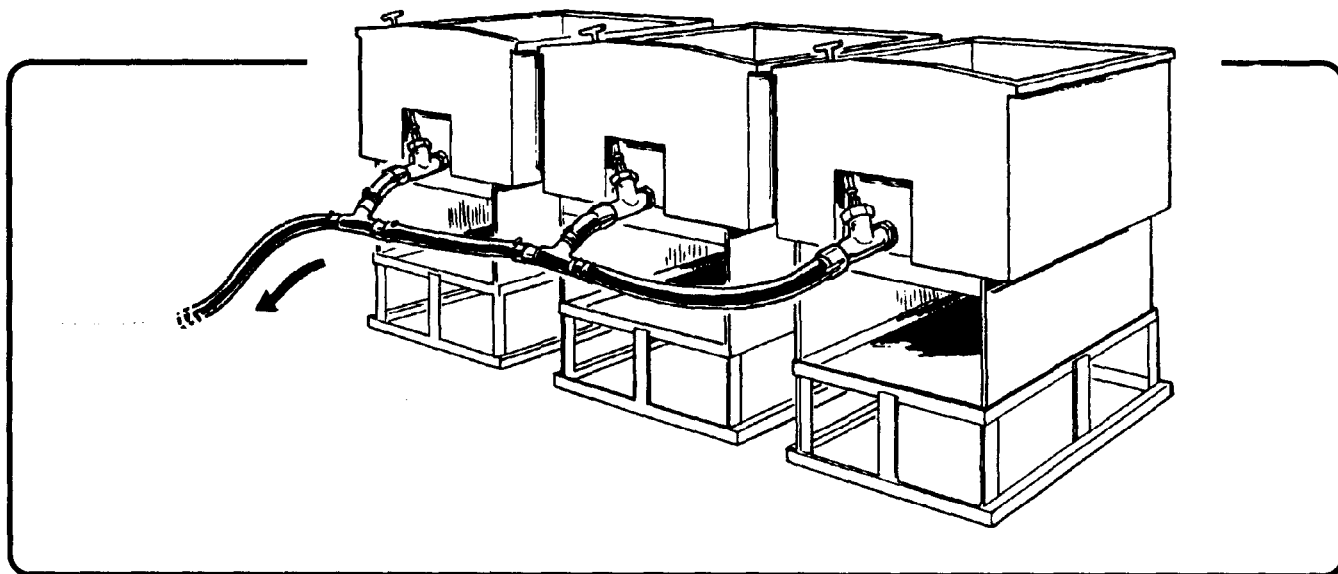


Figure 9-11. Drain hose assembly

INSULATED FOOD CONTAINERS

Insulated food containers (LIN H83817) are used to keep hot foods hot and cold foods cold. Each container has three aluminum inserts with tight fitting covers. Each insert may be filled to 5 1/3-liters- (5 2/3-quart-) capacity. Hot and cold food should be stored in separate containers. The insulated food container may also be used to transport T-Ration pans.

Heating and Filling

A properly heated container will keep food warm for three to five hours. However, keep in mind that *TB MED 530 states that PHF held in an insulated food container for more than four hours must be discarded.* Before you put hot food in the container, heat the container as described in the following steps:

- Remove the inserts.
- Pour 2 quarts (1.9 liters) of boiling water into the container.
- Replace the inserts.
- Close the container lid and secure the latches diagonally.

- Let stand for at least 30 minutes.
- Open and remove the inserts.
- Pour water from the container.
- Put hot food in the insert and replace the insert cover (with gasket).
- Place the filled inserts in the container.
- Close and fasten the container lid by securing the latches diagonally.

Chilling and Filling

If you need to chill a container before you put cold food into it, follow the steps described below:

- Remove the inserts.
- Put crushed ice or 2 quarts of ice water in the container.
- Close the container lid and secure the latches.
- Let stand for 30 minutes.
- Pour ice or water from the container.
- Put food in the inserts and fasten the lids.
- Place the filled inserts in the container.
- Close and fasten the container lid by securing the latches diagonally.

Backhauling waste. When the operation plan calls for returning waste to a designated disposal point, the FOS must arrange for transportation support. Waste should be bagged or boxed when possible. Excess boxes and T-Ration pans must be nested to conserve space.

SANITATION CENTER OPERATIONS

When fully deployed, the SC will provide the primary means to wash and sanitize field kitchen components. To set up the dishwashing operations follow the procedures in Figure 12-8.

Washing Procedures

Follow the procedures below when washing pots and pans in the field.

Scraping. Scrape all food particles from pots and pans as soon as possible after use. Use a long-handled scraper (NSN 7330-00-205-1950) or a rubber scraper.

Prewashing. Use the fourth sink in the food preparation and service set for hospitals as a prewash sink. Water temperatures must be about 80 degrees Fahrenheit. After food scraps and particles are removed, items to be cleaned and sanitized are placed in the prewash for removal of heavy food particles, grease and burned-on food. Use a long-handled brush for this also.

Washing. Fill the wash sink with 20 gallons of warm water and heat it to 110 degrees to 120 degrees Fahrenheit (hot to touch). Add 12 ounces of hand-dishwashing compound, NSN 7930-00-281-4731. Stir vigorously to produce suds. Then thoroughly wash the item in the wash solution using a long-handled brush. Remove it from the wash solution and shake it vigorously to remove the excess solution. Change the wash solution when contaminated with food particles and grease. It is important that the wash solution temperature be kept between 110 degrees and 120 degrees Fahrenheit to soften greasy film.

1. Turn the handle on the top right-hand side of the sink clockwise to close the drain. Fill each sink with 20 gallons of water.
2. Use hand-dishwashing compound (NSN 7930-00-281-4731 (50-pound bags)) in field dishwashing procedures at the rate of 12 ounces per 20 gallons of water.
3. Use the same detergents for both field dishwashing and for hand-dishwashing operations. Never use machine dishwashing compounds for field dishwashing.
4. Maintain the temperature for the wash solution between 110° F to 120° F.
5. Maintain the first rinse temperature at 120° F to 140° F, this temperature will break down the soap residual for the final rinse.
6. Maintain the final rinse temperature at least at 170° F (77° C).
7. Use proper scraping and washing; they are important steps in field dishwashing.
8. Change the wash solution when it becomes contaminated by food particles and grease. Contamination is evident when there are no suds or a thin grease film develops on the water's surface. Change the rinse water whenever there is grease, suds or food particles on the surface. Drain the sink by turning the handle at the top right of the sink counterclockwise.

Figure 12-8. Procedures for setting up dishwashing operations

Rinsing. Two sinks are used for rinsing. Rinse dishes as discussed below.

First rinse. Use the second sink for rinsing detergent and abrasives off the equipment. Keep the water between 120 degrees and 140 degrees Fahrenheit at all times. Change the water as necessary.

Second rinse. Use the third sink for sanitizing. Submerge the item for 30 seconds in water that is at least 170 degrees Fahrenheit or higher. Then vigorously shake the item to remove as much water as possible. It is important to keep the rinse water at the proper temperature. Change the water when a grease film appears on the surface.

Air drying. Air-dry the equipment on the storage rack. Do not use towels or napkins.

Cleaning up. Drain the wash water. Wash the sinks using hand-dishwashing compound, hot water and a brush. Follow with a hot water rinse.

Safety Precautions

Observe all safety precautions including those discussed below. Ensure that—

- There is a fire extinguisher in the fueling area, lighting areas and in the M2 burner unit area of operation.
- Each area is 50 feet from the next area and 50 feet from any open flame.
- An operating pressure of 6 to 20 pounds is maintained.
- When the M2 burner unit is in the rack, it is as far to the rear of the rack as possible. The edge of the sink will become very hot if the burner is not placed all the way to the rear. Some models of the SC are equipped with a heat retaining flap that is lowered over the rack opening after the burner unit is in place. **THIS FLAP BECOMES EXTREMELY HOT. DO NOT TOUCH IT WITH YOUR BARE HANDS. USE A HOT PAD!**
- Heavy rubber gloves (if available) or tongs should be used when handling pots and pans in the wash cycle.

POT AND PAN WASH LINE AND MESS KIT LAUNDRY LINE

Two methods of washing and sanitizing field kitchen components is the pot and pan wash line and the mess kit laundry line. Figure 12-8, page 12-9, provides step-by-step procedures for proper cleaning and sanitizing using this method. The mess kit laundry is setup about 15 meters (50 feet) from the kitchen. Hand dishwashing compound (NSN 7930-00-281-4731) should be used for dishwashing. One mess kit laundry line can handle mess kits for up to 80 people. If more people are being served, more laundries need to be set up. The water must be replaced after being used by 80 people during the operation. For water conservation, do not change all cans at the same time.

Dispose of the wash water, clean the 32-gallon can, refill it with fresh water, and rotate it in the line for use as the final rinse.

Use the first rinse as the wash water and the final rinse as the first rinse.

NOTES: 1. *Pot and pan wash line is used when paper products are used in lieu of the mess kit. The wash line is set up the same as the mess kit laundry line. The wash line is used to clean all food service equipment. The water is to be changed and rotated the same as the mess kit laundry line, except the main objective is to change the water as often as necessary to maintain sanitary standards (It is not based on the number of personnel subsisted).*

2. *Do not use machine-dish washing soap or compounds.*

CHEMICAL DISINFECTING METHOD

Disinfectant, food service (chlorine-iodine type), NSN 6840-00-810-6396 (4.77-ounce pouch) is intended primarily for use in the field where the rinsing solution cannot be kept at the proper temperatures. When food service disinfectant is dissolved in water (between 75 and 110 degrees Fahrenheit), it releases both iodine and chlorine gas, which disinfect the utensils. If the compound is dissolved in too warm water (above 130 degrees Fahrenheit), the gases

are released too rapidly and the disinfecting action is soon lost. Figure 12-9, page 12-10, provides a step-by-step procedures for proper cleaning and sanitizing using this method. Make a chlorine-iodine solution for rinsing the washed equipment by dissolving the contents of one package of food service disinfectant in a

container (canteen cup), and pour the mixture into the 20 to 25 gallons of warm rinse water. Stir thoroughly to dissolve. Make a fresh solution for every 100 people and never reuse a solution. Disinfect the utensils by swishing them in the chlorine-iodine water for at least one minute.

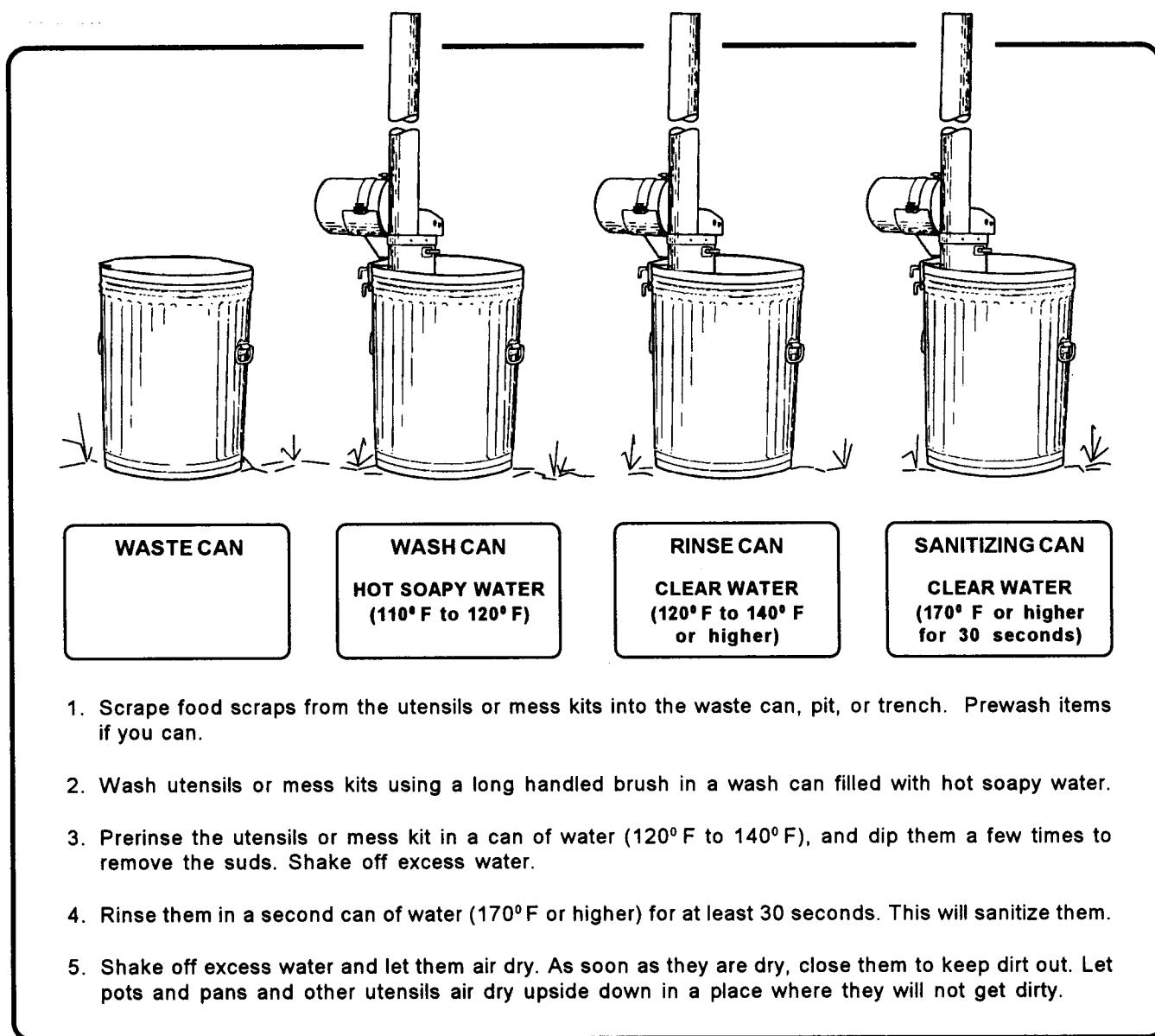


Figure 12-8. Procedures for using mess kit and pot and pan wash line

1. Scrape food scraps into a waste can, pit, or trench. Prewash items if you can.
2. Wash the items in hand-dishwashing compound solution.
3. Rinse the items in clean water.
4. Disinfect the items by swishing them in a disinfectant solution for at least one minute. Make a fresh solution for every 100 people. Do not use the solution again.
NOTE: The water temperature must be between 75°F and 110°F.
5. Let the items air dry in a place where they will not get dirty. Close mess kits after they dry.

Figure 12-9. Procedures for washing and sanitizing dishes with disinfectant solution.